

Electronic Commerce and Consumer Protection Development in Iran: Policy and Infrastructural Influences

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Abstract: Iran's 5 years economic plans have called for gradual movement towards a free market economy. E-commerce is one branch of economic activity that has begun to flourish in Iran. For that to be sustained, certain policy, infrastructures and standards are necessary such as a strong banking system, proper legislation, data security and copyrights and coordination of national financial legislation with international standards. This study examines the policy and infrastructure available in Iran to cater for the development of E-commerce. The memorandum of policy shows the responsibilities of executive agencies related to E-commerce in Iran. The various roles of the Iranian governmental departments and agencies show the specified duties and powers of each of them pertaining to the governance and management of E-commerce.

Key words: E-commerce, policy, infrastructures, consumers, economy, Malaysia

INTRODUCTION

The use of electronic technologies in conducting commercial affairs has a long history. In fact, the need for E-commerce originated with the demand from the private and public sectors and from society in general including consumers to use Information Communication Technology (ICT) (Hanafizadeh, 2006). Furthermore, internet technology not only allows businesses to present a vast array of information to a vast audience of consumers but also allows them to use the internet as a cheap and efficient distribution medium (Davies, 1996). E-commerce started with the innovation of Electronic Funds Transfer (EFT) in 1965 when consumers became able to receive and withdraw their money through Automatic Transaction Machines (ATMs) (King *et al.*, 2006). The internet has revolutionised the way business is conducted in this era of electronic transactions (Hoye, 2001).

Generally, the innovation of IT has passed through 2 periods of 20 years each and has now entered its 3rd period as the following list entails (Ali, 2008):

- 1954-1974, the age of Electronic Funds Transfer (EFT) or Electronic Data Processing (EDP)
- 1975-1994, the age of Management Information Systems (MIS)
- 1995-2014, the age of the internet

During each of these 20 years periods, the infrastructure of E-commerce has been based on available

IT capabilities. During the 1st 20 years period, ATMs and credit cards were invented and during the 2nd period Electronic Data Interchange (EDI) became possible. In the 3rd period which is still on-going (1995-2014), the expansion of the internet and its commercial applications yielded a fundamental innovation in E-commerce. In fact, with the creation of the virtual environment through new information and communication technologies, a great part of this era is dedicated to E-commerce. The Islamic Republic of Iran Economic, Social and Cultural Development Plans (ESCD) (5 years cycles, especially the 4 and 5th (2004-2009, 2010-2014)) as discussed represents the development of E-commerce in Iran. Although, economic development in Iran is somewhat affected due to American led economic sanction, Iran capability in developing its IT infrastructure is well in progress. This can be seen from the various economic and technology strategies adopted by Iran. Such policy and IT infrastructure influence the growth of E-commerce in Iran and this is evident from the setting up of governmental special unit or department overseeing E-commerce capability, relevant legislation and IT software and hardware support. However in this study, the researchers do not discuss the relevant legislation as they are analysed in other study.

E-COMMERCE POLICY IN IRAN

During the past 2 decades, Iran's 5 years economic plans have called for gradual movement towards a free market economy. According to Asemi (2006), Iran is the

2nd most populous country and the 2nd largest economy in the Middle-East. Nicholson and Sahay (2003) said:

Up to the late 1970's, Iran was a key hub of ICT in the Middle-East and many foreign suppliers had their own branches in Iran. The Iranian industry was very well developed in the 60's and 70's; early software systems supporting the Persian (Farsi) language were developed in Iran

The Iranian E-commerce legislation was planned by a special National Committee and presented to Parliament in 2002. Prior to that in 1996, a general draft was adapted from the UNCITRAL Model law, it was approved and referred to the legal sub-commissions and to the economic head of the Industries and Mines Commission for deliberation.

The draft had 27 Chapters and was passed by Parliament in 2004. After the passing of the legislation in Parliament, the Department of Justice considered the following codes for E-commerce development:

- Civil procedure law about E-commerce including rules related to jurisdiction, conflict resolution and arbitration transition at the national level
- Criminal law about E-commerce
- Civil liability law about natural and legal persons in E-commerce (Rasoolnia and Leila, 2009)

Online transactions in Iran in 2010 totalled only 100,000 US\$. In contrast in developed countries, 70% of people perform transactions online. Online income in Europe is >1.4 billion dollars in the United States 2.2 billion dollars and in East Asian countries 2.7 billion dollars; the lowest income from internet trading is found in West Asian countries including Iran at only 360,000\$ year⁻¹.

Iran's daily income through online transactions and internet trading is only about 5\$. Esfandiari points out that Iran needs to reform the physical structure and nature of its industries and the processes of marketing, insurance and after-sale support services to foster the growth of E-commerce.

For E-commerce to flourish, certain infrastructures and standards are necessary such as a strong banking system, proper legislation, data security and copyrights and coordination of national financial legislation and laws with international standards.

In addition, accepting electronic documents in courts and the availability of high-speed internet access are among the factors that encourage E-commerce

transactions that are presently inadequate in Iran. However, a new development has recently taken place in Iran. In Feb 2011, Iran established a centre for issuing electronic signatures (digital signatures) in Tehran.

The admissibility of an electronic document in Iranian courts requires a signature but fraud has become a problem. To prevent these problems, electronic signatures use a code approved by the electronic signature centre.

In 2011, Iran introduced an additional requirement; a symbol of electronic trust that must be requested by any website that engages in selling or buying goods and/or services and approved by the Mindless Crap (MC). After approval, the website owner or the seller needs to display the electronic symbol of trust on the website.

From the researchers' point of view, this function at least will benefit consumers. They will feel confident that they can trust the websites displaying the symbol and will not fall prey to gold quest companies. Also, consumers can trust the quality, quantity and price of the goods and/or services because the symbol of electronic trust proves that the sites are credible. Further action recommended by the Iranian government includes the establishment of a virtual shops union and the determination of a model for electronic penetration. These functions are considered very essential for Iran.

Through this process, Iranian society will transform into a knowledge or information society. Iran faces both opportunities and challenges during its transition from a natural resource-based to a knowledge-based economy.

With the advancement of internet technology, Iranian society has to move forward in order to be categorised as an information or network society (UNCTAD, 2006). However, any development in the internet or ICT technology in Iran should focus on consumer protection as all members of Iranian society are in one form or another consumers (Jaberi, 2007). To improve E-commerce, the Iranian government has established two centres of digital signatures: the Centre of Documents Registration and the Iran Stock Organization in Tehran. About >800,000 digital signatures have been issued so far.

Although, E-commerce sales in Iran totalled <4 million dollars in 2003, the value of electronic commerce reached 12.8 million dollars in 2006, registering an average annual growth of 48.6% (www.kishtpc.com).

Acting on the proposal No. 700/30891, dated 2001, by the High Council of Informatics Secretariat and by virtue of Principle 138 of the Constitution of IR Iran, the

Council of Ministers, in its session held on 19 May 2002, approved the E-commerce policy of IR Iran, as follows:

Objective: In view of speedy expansion of E-commerce in the world, the inevitability of its use, role of E-commerce in the preservation, strengthening and development of Iran's competitive edge in the world and the savings made from the implementation of E-commerce in Iran, the government of Iran declares its determination to use and promote E-commerce in Iran in accordance with the following principles and policies:

Principles

- Providing basic infrastructure and legal and executive background required for the use of E-commerce
- Promoting education and propagation of the culture of the use of E-commerce
- Supporting the promotion of non-public sector activities, preventing monopoly and creating grounds for competition
- Removing any biased limitations in E-commerce
- Promoting the use of the internet networks for carrying out E-commerce in Iran and taking the necessary measures for the health of contents of the said networks

ICT INFRASTRUCTURE

The lack of an appropriate legal framework in the areas of information and infrastructure security and cybercrime has presented developing countries including Iran with serious obstacles to enjoying the opportunities of E-commerce (IROST, 2011). The Iranian National Report on E-commerce states that:

The development of E-commerce requires a series of essential activities in technical infrastructure, standards for trade and administration facilitation, legal and regulatory issues, awareness, training and education, private sector protection security and government supports to provide conditions for economic players such as consumers and businesses that play a key role in the application of E-commerce (www.kishtpc.com)

Considering the conditions in the development of ICT in which the technical and communicational infrastructures are created or could be created by the government, three main challenges exist. These challenges are human resources, cultural conditions and required laws. Jalili *et al.* (2010) states that:

Human resources is known as a fundamental and effective subject in the development of E-commerce. The knowledge of correspondents of offices in the field of IT and E-commerce is low and they do not require knowledge and skill. Therefore, both the government and private sectors can design and implement the programs to increase IT and E-commerce knowledge of the correspondents. Lack of understanding of the importance of E-commerce makes it and E-commerce position to remain weak. Experiments of the members of Organization of Economic Cooperation and Development (OECD) show that even the best strategies of electronic sales cannot turn the table of current commerce alone. The most important challenge of E-commerce development in general and especially in Iran is pertaining to laws. According to experts' idea, security of transferring information, reliability of systems and the integrity of exchanging process are three main legal obstacles. These challenges can be solved by making appropriate laws considering consumer protection

ICT and national laws should be not only in tandem with each other but also at par and sensitive to the transitions taking place in the global legal scenario, including consumer protection.

The European Union is re-evaluating its laws to ensure that consumers are not deprived of their rights, especially in E-commerce. Progress of ICT brings 4th the notion of achieving high information technology literacy in the population through exposure to information technology from various direct initiatives such as those from the government and indirect exposure through the use and acceptance of the internet.

However, online trading and E-commerce are gaining momentum in Iran, especially through the internet. One of the most important infrastructural requirements for conducting E-commerce is high-speed internet access. Technical infrastructure and access to information are important aspects of developed countries.

Easy, cheap and fast internet access enables companies and consumers to obtain information on the prices of the goods and services and generates new opportunities; moreover, it facilitates access to education and knowledge and improves public health. The success of E-commerce in Iran therefore depends on the participation of both the private sector and the government to create an environment that promotes trust and confidence among E-commerce participants. This environment can also be enhanced by the presence of

Table 1: Iran's internet speed ranking among 185 countries worldwide

Ranks	Countries	Internet speed (Mbs)
175	Angola	0.820
176	Yemen	0.800
177	Suriname	0.780
178	Iraq	0.770
179	Bangladesh	0.760
180	Gabon	0.650
181	Islamic Republic of Iran	0.630
182	Vanuatu	0.620
183	Cameroon	0.550
184	Bolivia	0.540
185	Lebanon	0.470

Asreiran, electronic newspaper: <http://www.Asreiran.com>

Non-Governmental Organizations (NGOs) fulfilling a variety of roles. According to the UNCTAD reports in 2002 and 2005, most policy makers believe that E-commerce will not continue to grow unless businesses and consumers are trained to recognise the opportunities and advantages of E-commerce and know how to use the internet (UNCTAD, 2005, 2010). The speed of internet access is now considered one of the significant factors for evaluating the development rate of any country; among 185 countries in the world, Iran's speed of internet access is ranked 181st (Table 1).

Although this position is nothing to be proud of, Iran has shown a growth rate of >20% and the highest level of development in telecommunication and is proud to have been awarded the UNESCO special certification for providing telecommunication services to rural areas (www.ict.ir).

GOVERNMENTAL AGENCIES' ROLE IN E-COMMERCE

The main reasons for the lack of development of economic affairs in any country seem to be an indifferent attitude toward social justice in its society and a failure to provide the basic needs for human development. It is therefore necessary for a government to enforce laws that are capable of effectively and vigorously addressing crimes of consumer fraud such as malpractice, adulteration and production of substandard goods, to ensure the adequate protection of consumers. The government should be able to take the appropriate actions and preventive measures, as determined by law to enable all citizens to use the internet and other electronic media for their transactions. Thus, institutional, organisational and social constraints apart from consumer ideology play a significant role in shaping consumer law. As the Iranian Commission on Science and Technology for Development in 2007 states:

Currently, many societies and governments are concerned about inequalities in the development of infrastructure and global access to and use of information and communication technology, the effort should be made to turn the digital gaps into digital opportunities through the promotion and consolidation of digital ties. In keeping with the continued internationalization of the internet, it is imperative that existing laws and governance mechanisms be reviewed, private sectors, civil society and other authorized organizations should be enactive and adapt to the reality of the present time

The government of IR Iran has addressed policy issues on ICT and IT development in 5 years cycles within the Economic, Social and Cultural Development Plans (ESCD). In the 1st and 2nd ESCD, the development of ICT was the exclusive responsibility of the government which expanded and improved IT infrastructure in rural areas and cities including long-distance and international postal and telecom services. In 2000, a fundamental shift took place in which state telecommunication companies decided to transfer some of their functions including maintenance and operation, design, engineering, installation and operation, testing and delivery of equipment and networks, to private and cooperative sectors. Principles 43 and 44 of the Iranian Constitution provide for the prohibition of monopolies of all kinds as one of the fundamental principles of the Iranian economy. The fourth ESCD, enacted in September, 2004 for the period of 2005-2009, stated that the government planned to expand communications and information technology and to materialise a knowledge-based economy or K-economy, to encourage regional development, facilitate communications and provide new opportunities for provision of services for individual families and companies.

A knowledge economy requires the creation of a pool of workers with both skills and knowledge. According to the 4th Iran ESCD, the government must attain at least 50, 35 and 30% penetration ratios for fixed telephone lines, mobile phone lines and internet usage, respectively and provide high-speed internet access at least in cities with >50,000 inhabitants. When high-speed internet access is difficult and the prices are not fair, many Small and Medium-sized Enterprises (SMEs) which constitute a large percentage of Iran's industrial capacity cannot do business online. Among the eight countries of the Middle East, Iran ranks seventh for E-commerce preparation and application and it ranks 59th worldwide.

According to Article 156 of the Iranian 4th Development Plan, all Iranian governmental organisations must conduct 30-50% of their transactions through the internet (www.dmk.ir/pdf/02.pdf).

The general policies of the 5th Development Plan are organised according to the framework of Iran's 20 years Outlook Document. At the opening ceremony of the 3rd centre for issuing digital signatures, Iran's Minister of Communication and Information Technology (CIT) stated that according to the 5th Development Plan, executed from 2010-2015, Iran should conduct 20% of its internal trading and 30% of its external trading electronically (www.jahaneghtesad.com). Article 21.3 of the 5th Iran Development Plan states that the employment situation must be improved with insist on the stability of the commercial era and preparing the informative, legal and scientific technology infrastructures (www.ict.ir/pdf/02.pdf). In addition, Article 48 of the mentioned plan says that the government is responsible for preparing and

providing enough infrastructure for the expansion of digital signatures and increasing trust and confidence in electronic transactions (www.jahaneghtesad.com). Therefore, as in any other jurisdictions the approach of law is through the power of the state. The efficiency of consumer protection lies with the law through the power of the state. Consumers cannot be left on their own to protect themselves in the cyber arena. Along with the state, the private sector in the form of guilds and NGOs must perform its role properly by aiding in the enforcement of the laws and regulations and giving adequate information to the consumer and this development occurs in Iran. The expansion of E-commerce infrastructure is not the responsibility of a single ministry or agency but instead requires the combined efforts of all associated government agencies and the private sector. Table 2 (Memorandum of Policy) shows the responsibilities of executive agencies related to E-commerce (www.irica.com; www.dmk.ir; www.ict.ir).

Table 2: Executive governmental agencies' responsibilities for E-commerce establishment and development in Iran

Ministry/Organisation	Dedicated responsibility	Accompany agency
Communications and Information Technology (CIT)	Providing the governmental and private sector with the necessary software and hardware, assisting with implementation and use and establishing confidential, secure high-speed connectivity to the internet at reduced cost	Private Sector and Guilds
Economic affairs and finance	Drawing up a comprehensive plan for the use of electronic funds transfer through credit card services	Bank Markazi Iran (Central Bank) and other banks, Economic Information Specialized Commission of the High Council
Ministry of Commerce (MC)	Completing the feasibility study of Iran's comprehensive E-commerce plan and compiling the long-term plan for the development of E-commerce within the 3rd Developing Plan Implementing the E-commerce pilot project as a typical E-commerce marketplace to provide a secure basis for electronic transactions and internal foreign E-transactions and providing required utilities and supporting the implementation of similar projects by the private sector Establishing a typical certification authority as an executive agency overseeing E-commerce, requiring hardware and software that provide world-class services and technology Conducting short-term general and advanced training programs and internal and international seminars and conferences on E-commerce Strengthening Iran's scientific capabilities and absorbing and stimulating the internal and foreign private investment within the framework of E-commerce legislation	High Council of Informatics Secretariat (HCIS), Ministry of Science, Research and Technology (MSRT), Ministry of Communications and Information Technology (MCIT), Private Sector (PS)
Islamic Republic of Broadcasting (IRIB) or radio and television organization	Developing, filming and broadcasting training programs on E-commerce	MC, HCIS
High Council of Informatics Secretariat (HCIS)	Compiling the National System of Certification Authority and ensuring its ratification by the Council of Ministers Preparing and providing comprehensive and secure E-transactions, ensuring confidentiality of statistics and information and observing the health of users' content on Iran's public network	MC, MCIT, MSRT, Ministry of Industries and Mines (MIM), PDSPC
Ministry of Science, Research and Technology (MSRT)	Establishing E-commerce in Iranian universities, offering and teaching courses on technical and economic aspects of E-commerce	MC, MCIT, HCIS
Ministry of Foreign Affairs	Cooperating in promoting and strengthening the activities related to E-commerce between Iran and other countries, including the Islamic Conference Organization, Group of 77, Economic Cooperation Organization (ECO), Colombo Plan and international agencies affiliated with United Nations	MCIT, HCIS

Table 2: Continue

Ministry/Organisation	Dedicated responsibility	Accompany agency
High Council of Free Zones Secretariat	Establishing E-commerce in free zones	Executive agencies active in free zones
Deputy President, Strategic Planning and Control (PDSPC)	Allocating funds for implementation of E-commerce and dissemination of the comprehensive information network project through the national budget bill	Related executive bodies
Government (Executive Power and Council of Ministers)	Allocating a part of the subject matter of annual budget laws for increasing the active role of the NGOs in the promotion of E-commerce	Council of Ministers
SHCI, MC, MSRT, MIM, PDSPC, MCIT, Central Bank	Drawing up the necessary measures with a comprehensive plan to maintain security of electronic exchanges and confidentiality of data and information and establishing centres to issue digital signatures	MC, MCIT, MSRT, MIM, PDSPC, SHCI, Central Bank

E-commerce policy in I.R. Iran (DCM, 2011)

Buying and selling online via the internet is hassle free and provides a greater choice of goods and services which is uncommon in Iranian society. This phenomenon is attributed to consumers' lack of confidence in and support of E-commerce due to the inadequacy of laws to protect consumers against the risks of buying goods via the internet (Ali, 2008). Besides laws, one significant way of protecting consumers' rights is through the formation of guilds and societies. The United Nations (UN) Guidelines for Consumer Protection provide the following guidelines for protecting consumers' rights:

- The protection of consumers from hazards to their physical health and safety
- The promotion and protection of the economic interests of consumers
- Access to adequate information to make informed choices according to each consumer's individual wishes and needs
- Consumer education rights, including education on the environmental, social and economic impacts of consumer choice
- Availability of effective consumer redress
- Freedom to form consumer and other relevant groups and organisations and the opportunity for consumers to present their views as part of decision-making processes affecting them
- The promotion of sustainable consumption patterns
- The right to access a competitive and anti-monopoly marketplace

The UN Guidelines mentioned above exist implicitly or explicitly in Iranian laws regarding consumer protection. The Iranian Revolution Council established the Iranian Consumer Protection Organization (CPO) (www.cppo.ir). Because the Minister of Commerce, Minister of Industries and Mines, Minister of Labor and Social Affairs, Minister of Agriculture, Head of the Central Bank and President of the Strategic Planning and Control

(PDSPC) are members of the CPO, it can recommend useful and protective legislation and guidelines to protect consumer rights in online transactions. Article (6) of the constitution of the CPO describes the objectives of the organisation and among the responsibilities of the organisation to protect consumer rights is the protection of the consumers for the fluctuation of the unfair internal and external prices.

CONCLUSION

The progress and development of E-commerce is dependent upon the comprehensiveness of the policy and infrastructures governing E-commerce transactions. Therefore, such policy and infrastructures are an important way to overcome challenges in the information technology arena. Consumer protection should not be addressed piecemeal; instead, contractual principles protecting consumers should be instilled under a specific policy translated into legislation. Iran should not wait for disputes to arise to assess the suitability of its policy and laws for handling E-commerce issues. Instead, it should equip itself with modern infrastructure as it is lagging behind in adapting to technological advancements, especially in the areas of online contract formation and consumer protection. The policy and legislative measures, in terms of a specific act are suited to the modus operandi of E-commerce contracts and would remove any legal obstacles or impediments to the development of electronic commerce and create a secure legal environment for consumers. Despite the economic setback currently suffered by Iran, its policy and infrastructure supporting the growth of E-commerce is well in place.

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